

.

---

**From:** Piro, Peter (DPH)  
**Sent:** Monday, April 25, 2011 7:52 AM  
**To:** Lawler, Michael (DPH); Salemi, Charles (DPH)  
**Cc:** Nassif, Julianne (DPH)  
**Subject:** 1,4-BD Retraction

Hello All,

To extract 1,4-BD from an aqueous sample, I'm suggesting we try a method similar to the extraction of GHB free acid. Aqueous samples are first saturated with NaCl and then extracted 2X with ethyl acetate in a 1:2 ratio (water:ethyl acetate). Excess ethyl acetate is then evaporated while making sure not to evaporate to dryness. During my last round of experiments with 1,4-BD I must have isolated the wrong layer, i.e. the H<sub>2</sub>O layer instead of the petroleum ether layer....mi culpa. It turns out that petroleum ether, chloroform and ethyl ether have limited success with BD extractions. Ethyl acetate seems to be a better extracting solvent and the trickery with NaCl is beneficial for total recovery levels.